

**UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

Notice Of Inquiry On FCC)
Efforts To Promote “Advanced) **FCC Docket No. 04-54**
Communications Capabilities”)

**REPLY COMMENTS OF
DON SCHELLHARDT, ESQUIRE**

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DON SCHELLHARDT, ESQUIRE**

I am Don Schellhardt, Esquire. As a supplement to my Written Comments of May 10, 2004, in FCC Docket 04-55, I hereby submit these Reply Comments in the same Docket. This Docket is a Notice Of Inquiry, designed to gather insight and information for the Commission’s next Report To Congress on how the FCC has promoted “advanced communications capabilities” -- including, most notably, broadband technologies and wireless technologies -- as well as how it plans to promote them in the future.

These Reply Comments focus on the May 7, 2004 Written Comments of the ONE GIGABIT OR BUST! INITIATIVE of the CORPORATION FOR EDUCATION NETWORK INITIATIVES IN CALIFORNIA (CENIC).

ABSTRACT

Of all the Written Comments in this Docket which favor governmental action to expand “advanced communications capabilities”, the most impressive filing is -- in my opinion -- the May 7 Written Comments of the ONE GIGABIT OR BUST! INITIATIVE of the CORPORATION FOR EDUCATION NETWORK INITIATIVES IN CALIFORNIA (CENIC).

CENIC is pursuing a goal of *one gigabit-per-second of broadband capacity* for every Californian by 2010. I am *not* rejecting this goal, Out Of Hand, for California -- or for the country as a whole. However, it is very important to pursue this goal *by means which minimize* interference with other uses of the electromagnetic spectrum (particularly those with potential life-or-death implications) ... vulnerability to Electromagnetic Pulse (EMP) and/or other possible disruptions ... human and animal exposure to Electromagnetic Radiation (EMR) ... and susceptibility to interception and translation of signals containing private personal and/or institutional information.

We must also take into account *the national economy as a whole* -- not just the communications and “high tech” sectors. Reasonable regulatory oversight should be maintained to assure that huge amounts of capital are not diverted from investments with a very high social value (such as solar photovoltaic energy) toward investments with a moderate, or even low, social value.

Identification Of The Commenting Party

At present, I am a Government Relations attorney, in solo practice, and a writer.

My current clients include THE AMHERST ALLIANCE, a citizens’ advocacy group for more open airwaves in general and Low Power Radio in particular, and the NATIONAL ANTENNA CONSORTIUM (NAC), which represents ham radio operators and other owners, users and/or builders of communications antennas.

In these Reply Comments, I speak only for myself. My views do not necessarily reflect the outlook of any current client, previous client or past employer.

In addition to my work in recent years for THE AMHERST ALLIANCE and NAC, I have spent nearly 3 decades, overall, working for, or attempting to influence from the outside, various arms of government. This work has involved all 3 branches of government -- Legislative, Executive, Judicial -- at both Federal and State levels.

I have extensive experience with *communications legislation and regulation*, but I also have extensive experience with *energy and environmental legislation and regulation*.

The former body of experience includes a total of 5 years as leader of THE AMHERST ALLIANCE, as well as more limited experience with NAC and with CANYON AREA RESIDENTS FOR THE ENVIRONMENT (C.A.R.E.)

The latter body of experience includes:

- 3 years as a Congressional aide, specializing in energy, the environment and national defense

- 12 years as a Government Relations attorney with the American [Natural] Gas Association, including service as A.G.A.'s Director of Legislative and Regulatory Affairs

- 1 year as a Policy Advisor at the U.S. Environmental Protection Agency

- 1 year as an energy and environmental consultant, specializing in energy utilities, with clients including the U.S. EPA and 3 State Public Utility Commissions

“ONE GIGABIT OR BUST?”

As the Commission is well aware, a number of commenting parties in this Docket have called for active efforts by governmental institutions to promote the development, commercialization and expansion of “advanced communications capabilities”. Given personal resources which are very limited this month -- in part because of the breakneck pace of the FCC’s deliberations on Broadband Over Powerlines (BPL) technologies, in Docket 04-37 -- I decided to focus upon only *one* of these commenting parties.

In my opinion, the most impressive and appealing case has been made by the ONE GIGABIT OR BUST! INITIATIVE of the CORPORATION FOR EDUCATIONAL NETWORKS IN CALIFORNIA (CENIC). I was impressed by CENIC’s combination of clarity with brevity ... by the fact that it has actually attempted to document, rather than simply asserting or assuming, the economic benefits of expanded broadband capacity ... *and* by its apparent willingness to Dream Big. The organization’s stated goal -- “one gigabit-per-second of broadband capability for every Californian by 2010”, or “a thousand-fold increase” over the California capacity of “commercial DSL and cable networks” in 2002 -- is certainly a breathtaking challenge.

Breathtaking challenges usually rivet my attention. I agree with the statement in the lobby of Chicago's Sears Tower:

Dream no little dreams. They have no power to stir the blood.

I do *not* reject, Out Of Hand, the electrifying, adrenalin-triggering goal of "One Gigabit Or Bust!" for California -- or for the country as a whole. My concern is whether this can be done *without* undercutting other goals that are even more compelling -- including the maintenance of:

Emergency communications in particular and national security in general
Public health
Personal and institutional privacy
And
Adequate capital for important competing investments in our economy

Serving these goals means, among other things, that America *must* pursue the goal of expanding "advanced communications capabilities" -- whether the objective is one gigabit-per-second or something else -- *through steps which minimize:*

Interference with other uses of the electromagnetic spectrum (especially those affecting emergency communications, military communications, ground-to-air communications, ship-to-shore communications, electronic equipment in hospitals and other profoundly vital activities)

Vulnerability of electronic equipment to Electromagnetic Pulse (EMP) and/or other possible disruptions

Human and animal exposure to Electromagnetic Radiation (EMR), which generates non-thermal effects that have yet to be studied adequately by *impartial* scientific observers

And

Susceptibility to signal interception and translation by those who seek to invade personal and/or corporate privacy -- or worse

Do We REALLY Want “Technology-Neutral” Decisions?

CENIC states that decisions by governmental institutions, in their efforts to expand “advanced communications capabilities”, should be “technology-neutral”.

Fortunately, CENIC has the good sense to contradict itself almost immediately. CENIC states:

South Korea is embarking on an ambitious national program to replace high speed services through the deployment of next generation broadband using fiber in the home. *It is important to note that today one gigabit requires fiber,* though wireless technologies will offer important contributions. [Emphasis mine.]

So *CENIC itself* is not “technology-neutral”. It favors advanced fiber optics over wireless, at least as the *primary* means for reaching its overall goal.

Luckily, this is a rational preference -- inasmuch as it matches my own.

My point is this:

Governmental institutions should not *arbitrarily* favor one technology over another. However, they can and should apply to *all* technologies *impersonal performance standards*, derived from consideration of “the public interest”.

Discrimination between technologies, on the basis of *impersonal* standards of *quality*, applied to the *performance* of those technologies, is not only acceptable but necessary -- if the American people are to be protected.

Let me repeat a pivotal recommendation of my May 10 Written Comments.

The FCC can, and should, be selective in its promotions. It can, and should, assign a lower priority to -- and, where justified, even deny authorization for -- certain “advanced communications capabilities”, based upon factors such as:

Relative vulnerability to disruption
Potential for interference with other spectrum uses
Whether they will increase levels of Electromagnetic Radiation in the environment
And
Whether their privacy and security safeguards are relatively weak

Holograms vs. Solar Power

CENIC remarks that one gigabit-per-second is a minimum requirement for widespread commercialization of “holographic projections”. This reference raises another important issue: the *competition* for capital between the communications and “high tech” sectors and other sectors of the national economy -- and, more fundamentally, between investments with a very high social value and those with a lesser value to society.

I have no doubt whatsoever that “holovision”, *if* attractively priced, could be a huge commercial success. Indeed, visions from the science fiction mini-series “Wild Palms” are already tumbling through my head.

Still, we live in an era when rising gasoline prices are in the headlines, while dollars which could have been invested in clean, domestic energy alternatives, with lower *life cycle* costs, were instead spent on developing and marketing such luxury items as “big screen TVs” -- or converted into huge, unused fiber optics capacity, whose creation rendered some of its corporate builders bankrupt. (God Bless CENIC, By The Way, if it can put some of those unused fiber optics to work.)

My point is this:

We live in a time when conservation of *capital* may be as important as conservation of other basic national resources. *If* governmental institutions act as vigorously to promote “one gigabit or bust” as CENIC and other commenters have urged, *then* governmental institutions must acknowledge they will be affecting capital markets in a major way. Given this impact, governmental institutions must maintain enough continuing regulatory oversight to assure that huge amounts of capital are not diverted from nationally crucial areas (such as the development and commercialization of clean, domestic energy) for the benefit of products and services which are merely pleasant or convenient.

I know that investments to provide affordable solar photovoltaic energy are crucial to the nation's future. *I know* that investments in producing and marketing "big screen TVs" are not. *I suspect* that investments in "holovision" fall somewhere in between.

Let's hope that governmental institutions will try to assure that dollars for "holovision" come at the expense of dollars for "big screen TVs" -- *not* at the expense of dollars for solar photovoltaic generators.

CONCLUSIONS

For the reasons set forth herein, I urge the FCC to shape its actions in accordance with the observations contained herein.

Respectfully submitted,

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I hereby certify that a copy of these Reply Comments is being sent to Susan Estrada, Executive Director, ONE GIGABIT OR BUST! INITIATIVE, CORPORATION FOR EDUCATION NETWORK INITIATIVES IN CALIFORNIA (CENIC), 7668 El Camino Road, Carlsbad, California 92009.

Donald Joseph Schellhardt, Esquire